US009326013B2

(12) **United States Patent**
Koontz, III

(10) **Patent No.: US 9,326,013 B2**
(45) **Date of Patent: Apr. 26, 2016**

(54) **BROADCAST SYNCHRONIZATION**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 3 days.

(21) Appl. No.: **14/100,649**

(22) Filed: **Dec. 9, 2013**

(65) **Prior Publication Data**

US 2014/0096175 A1 Apr. 3, 2014

Related U.S. Application Data

(63) Continuation of application No. 12/633,346, filed on Dec. 8, 2009, now Pat. No. 8,607,292.

(51) **Int. Cl.**

H04N 7/173	(2011.01)
G06F 15/16	(2006.01)
H04N 21/242	(2011.01)
H04H 20/18	(2008.01)
H04N 21/222	(2011.01)
H04N 21/81	(2011.01)

(52) **U.S. Cl.**

CPC ***H04N 21/242*** (2013.01); ***H04H 20/18*** (2013.01); ***H04N 21/2221*** (2013.01); ***H04N 21/812*** (2013.01)

(58) **Field of Classification Search**

USPC 725/32, 34–36, 114–118, 144–148

See application file for complete search history.

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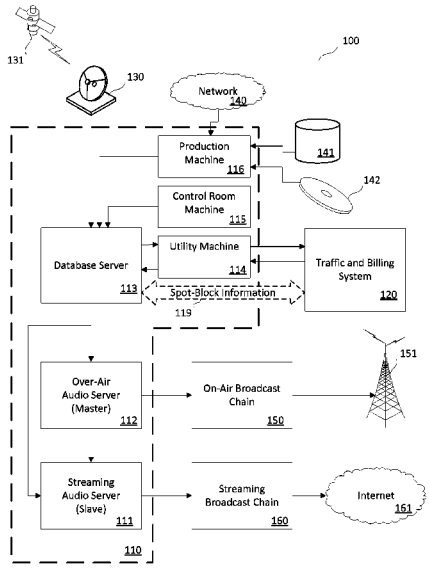
(57) **ABSTRACT**

A first media server delivers content for broadcast via a first media channel, and a second media server delivers media content for broadcast via a second media channel. The first media server operates in a synchronized mode, under control of the second media server during some periods of time, and during other periods of time operates in an independent mode. When operating in the synchronized mode, content delivered by the first and second media servers can be synchronized, so that the timing of spot blocks played on the two servers generally coincides. When the first server operates in the independent mode, the timing of spot blocks and other content broadcast on the first media channel are not synchronized under control of the second media server.

20 Claims, 3 Drawing Sheets



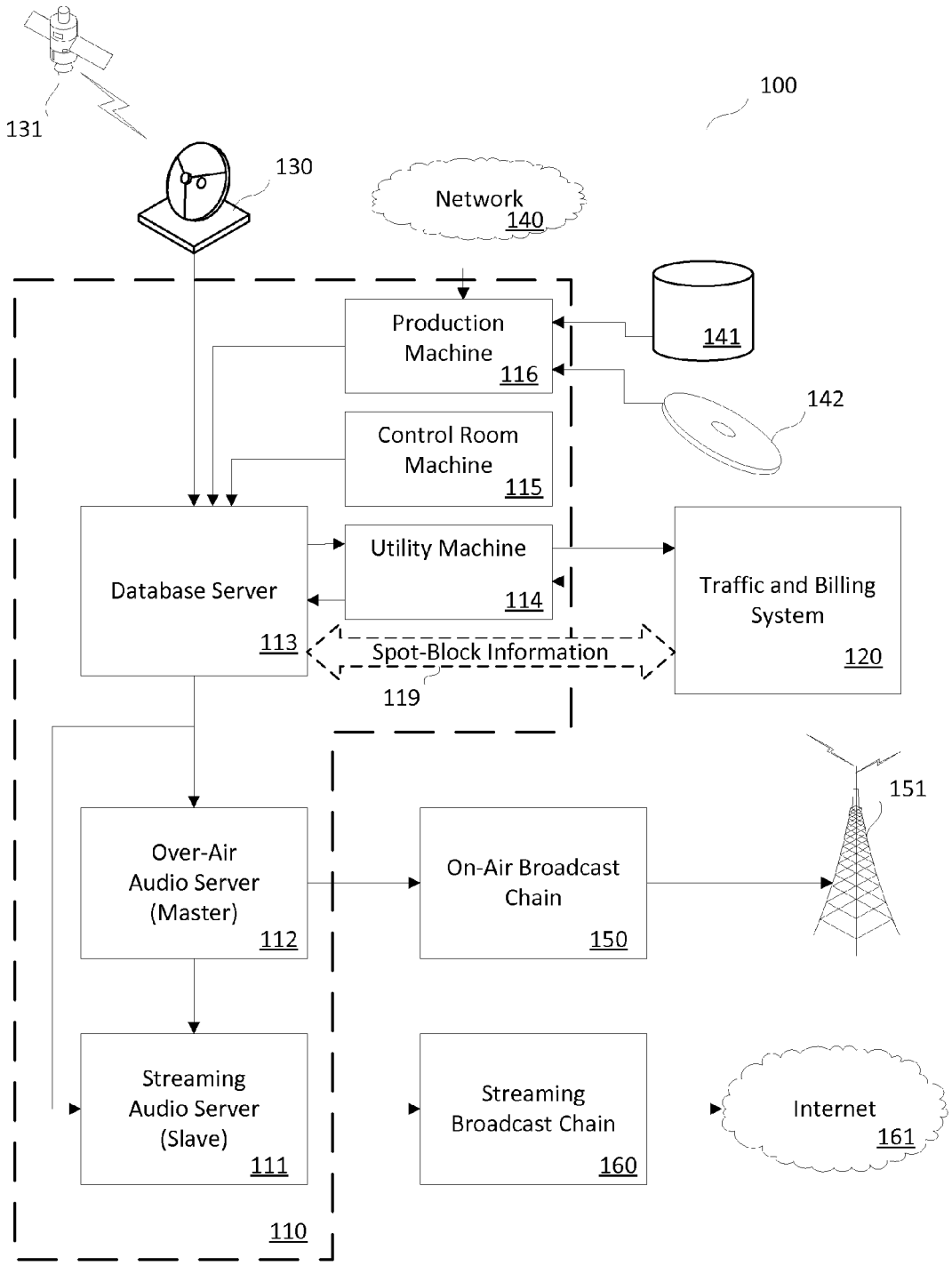

100
131
130
Network
140
Production Machine
116
141
142
Control Room Machine
115
Database Server
113
Utility Machine
114
Traffic and Billing System
120
Spot-Block Information
119
151
Over-Air Audio Server (Master)
112
On-Air Broadcast Chain
150
Streaming Audio Server (Slave)
111
Streaming Broadcast Chain
160
Internet
161
110

FIG. 1

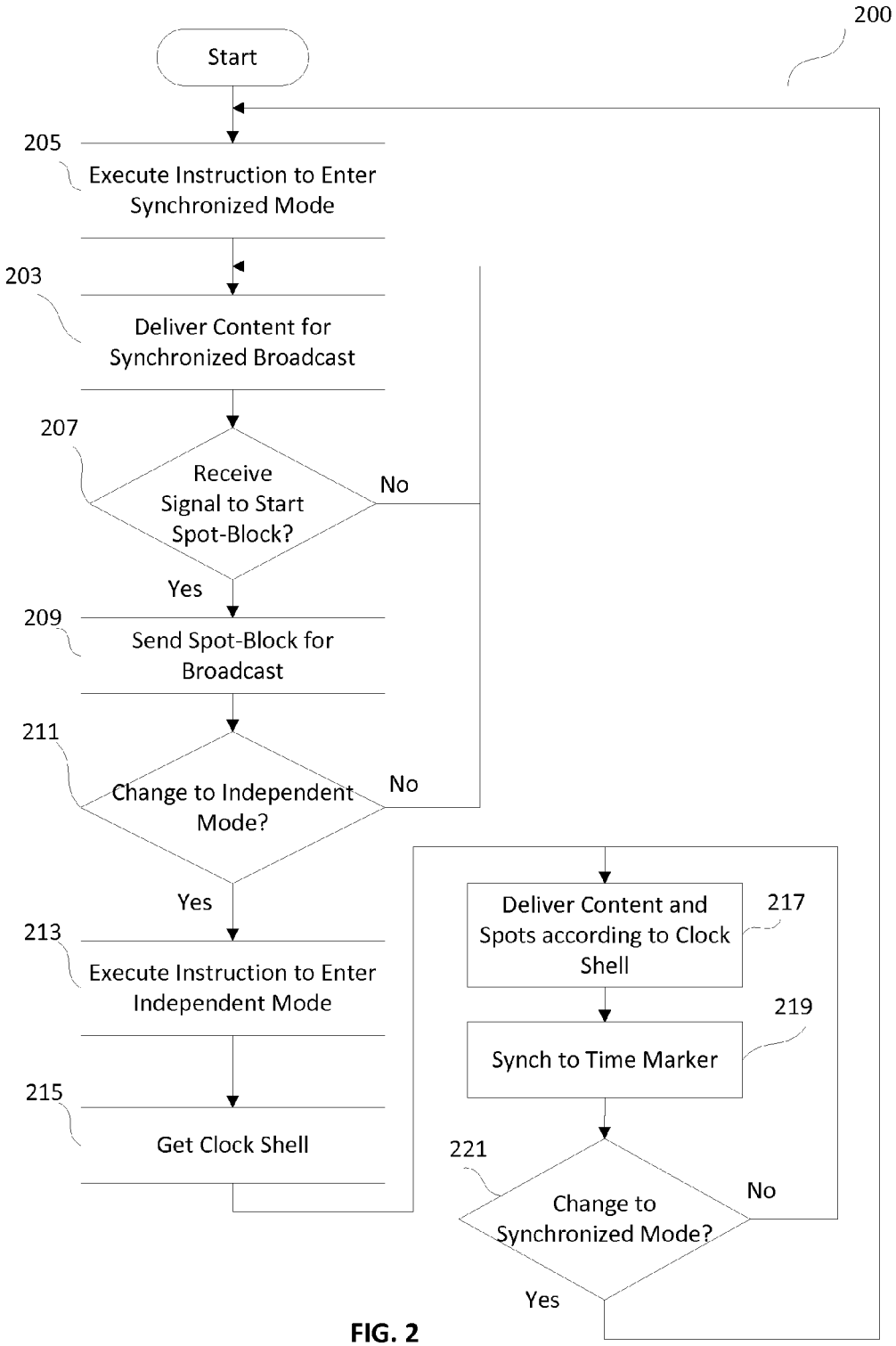

200
Start
205
Execute Instruction to Enter Synchronized Mode
203
Deliver Content for Synchronized Broadcast
207
Receive Signal to Start Spot-Block?
No
Yes
209
Send Spot-Block for Broadcast
211
Change to Independent Mode?
No
Yes
213
Execute Instruction to Enter Independent Mode
215
Get Clock Shell
Deliver Content and Spots according to Clock Shell
217
Synch to Time Marker
219
221
Change to Synchronized Mode?
No
Yes

FIG. 2

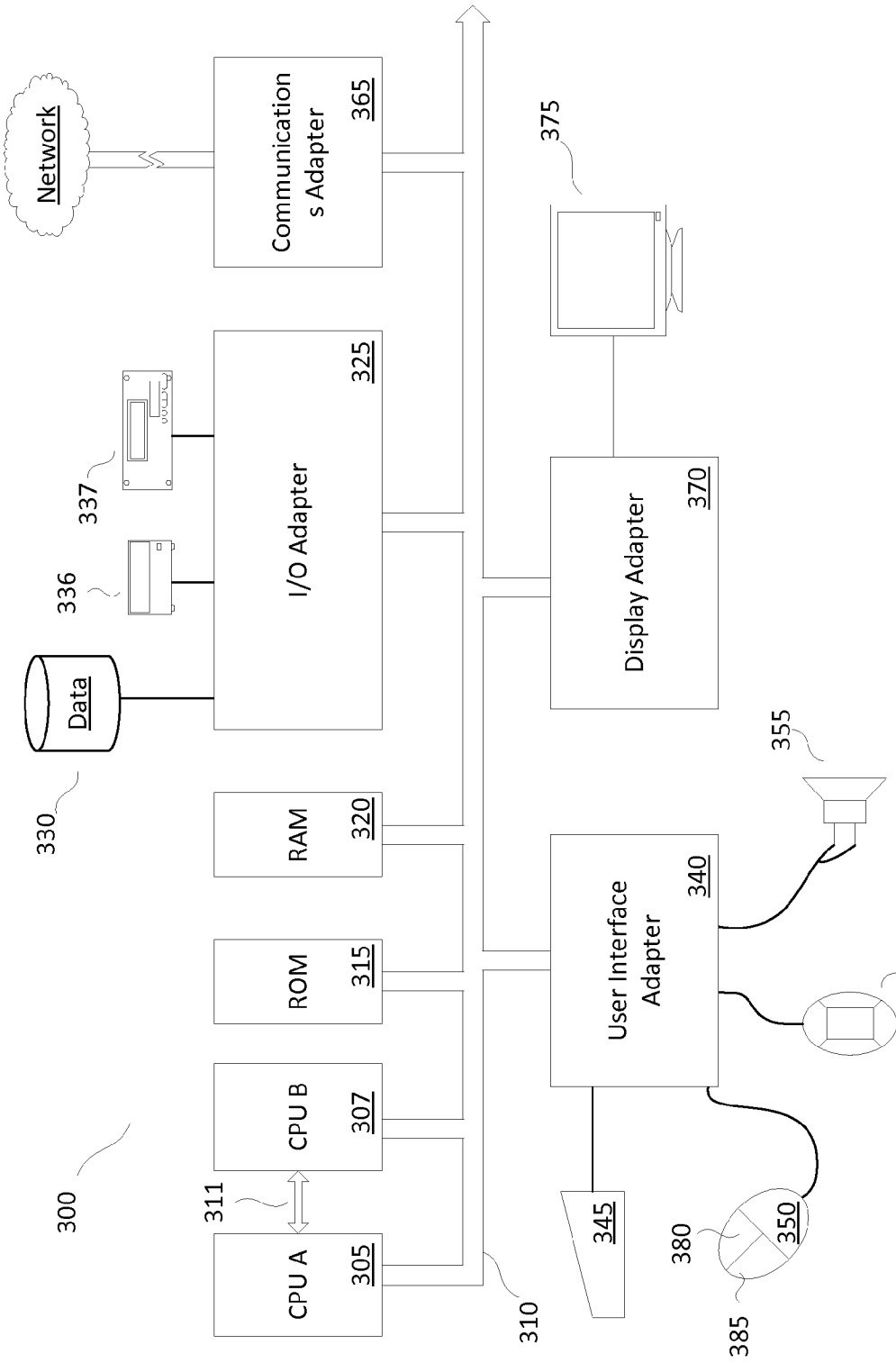

Network
Communications Adapter
365
375
337
336
I/O Adapter
325
Display Adapter
370
Data
330
RAM
320
355
User Interface Adapter
340
ROM
315
360
CPU B
307
300
311
CPU A
305
345
380
350
310
385

FIG. 3

BROADCAST SYNCHRONIZATION

CROSS REFERENCE TO RELATED PATENTS

The present U.S. Utility Patent Application claims priority pursuant to 35 U.S.C. §120, as a continuation, to the following U.S. Utility Patent Application which is hereby incorporated herein by reference in its entirety and made part of the present U.S. Utility Patent Application for all purposes:

U.S. Utility application Ser. No. 12/633,346, entitled, "Broadcast Synchronization", filed Dec. 8, 2009, pending.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT—NOT APPLICABLE

INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC—NOT APPLICABLE

BACKGROUND OF THE INVENTION

1. Technical Field of the Invention

The present disclosure relates generally to broadcasting, and more particularly to controlling the synchronization of media content broadcast via multiple different channels.

2. Description of Related Art

Radio, television, satellite, and other broadcasters often devote a significant amount of time and effort to scheduling media content and spots for broadcast. In some circumstances, the same content is delivered for broadcast over two different media channels, for example when a radio station broadcasts media content over the air, and streams the same media content via an Internet radio station. In some cases, even though both stations are broadcasting the same programming content, commercials, or spots, broadcast during particular spot blocks, may vary between stations. Broadcasting different spots during a common spot block can greatly increase the complexity involved in scheduling spots. It can also be difficult to make sure that the length of the spot blocks on both of the stations remain consistent, and that the spot blocks remain synchronized. Conventional technologies do not always provide the most effective way to handle the scheduling and synchronization issues that can arise in various broadcasting situations.

SUMMARY

Various embodiments of the present disclosure can be implemented as a system that includes a first media server configured to deliver media content for broadcast via a first media channel, and a second media server configured to deliver media content for broadcast via a second media channel The first media server can be configured to operate during a first portion of time in a synchronized mode at least partially under control of the second media server, and independently of the second media server during a second portion of time, in an independent mode. The first media server can be configured so that during operation in the independent mode, spots are delivered unconstrained by a spot block schedule used by the second media server. In some embodiments, during operation in the independent mode, the first media server is configured to operate in accordance with a copy of a clock shell associated with the second server.

Some embodiments can be implemented as a method that includes executing, on a first media server, an instruction to exit an independent mode and operate in a synchronized mode. During operation in the synchronized mode, the first media server, operating at least partially under control of a second media server, delivers first media content for broadcast via a first media channel. The second media server operates to deliver the first media content for broadcast via a second media channel An instruction to exit the synchronized mode and operate in the independent mode can also be executed on the first media server. During operation in the independent mode, the first media server can operate independently of the second media server to deliver second media content for broadcast via the first media channel. In various embodiments, during operation in the independent mode, the first media server delivers spots unconstrained by a spot block schedule used by the second media server. In some implementations, during the independent mode, the first server can operate in accordance with a copy of a clock shell associated with the second server.

Furthermore, some embodiments can be implemented as a media server that includes at least one processor, memory operably associated with the processor, and a program of computer readable instructions to be stored in the memory and executed by the processor. The program of instruction can include at least one instruction to exit an independent mode and operate in a synchronized mode at least partially under control of a second media server. The second media server can deliver the first media content for broadcast via a second media channel. The program of instructions can also include one or more instructions to be executed during operation in the synchronized mode to deliver first media content for broadcast, via a first media channel, and one or more instructions to exit the synchronized mode and operate in the independent mode. Additionally, one or more instructions can be included for execution during operation in the independent mode. Then at least one instruction can be executed to deliver, independently of the second media server, second media content for broadcast via the first media channel. Instructions can also be included, for execution during operation in the independent mode, to deliver spots unconstrained by a spot block schedule used by the second media server, and to cause the media server to operate in accordance with a copy of a clock shell associated with another server.

Aspects of this disclosure will become apparent upon reading the following detailed description and upon reference to the accompanying drawings, in which like references may indicate similar elements:

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S)

FIG. **1** is a block diagram illustrating a system including a media server configured to operate in both synchronized and independent modes, according to various embodiments of the present disclosure;

FIG. **2** is a flow chart illustrating a method of using a media server according to various embodiments of the present disclosure; and

FIG. **3** is a high level block diagram of a processing system according to embodiments of the present disclosure.

DETAILED DESCRIPTION OF THE INVENTION

The following is a detailed description of embodiments of the disclosure depicted in the accompanying drawings. The embodiments are presented in sufficient detail to clearly communicate the disclosure to one of ordinary skill in the art. However, the amount of detail offered is not intended to limit the anticipated variations of embodiments; on the contrary,

the intention is to cover all modifications, equivalents, and alternatives falling within the spirit and scope of the present disclosure as defined by the appended claims.

Referring first to FIG. **1**, a system **100** according to various embodiments of the present disclosure will be discussed. System **100** includes media automation system **110**, which can be used to control and automate various media broadcast functions; and traffic and billing system **120**, which is used to provide control for various traffic and billing functions such as entering and editing orders, and scheduling spots. System **100** also includes streaming broadcast chain **160**, through which a streaming broadcast of media content can be provided to a network such as Internet **161**; on air broadcast chain **150**, through which media content can be broadcast via a broadcast tower **151** or otherwise; and various media sources such as an individual source media **142**, bulk media storage **141**, programming from another market received via network **140**, and programming broadcast via satellite **131** received via satellite receiver **130**.

Media automation system **110** includes production machine **116**, which receives media content from network **140**, bulk storage **141**, individual source media **142**; control room machine **115**, and utility machine **114**, each of which is connected to database server **113**. Media automation system **110** also includes over-air audio server **112**, which provides media content to on air broadcast chain **150**; and streaming audio server **111**, which provides audio content to streaming broadcast chain **160**. Database server **113** can provide content to one or both of over-air audio server **112** and streaming audio server **111**. In at least one embodiment, one or more of the illustrated servers can be implemented as virtual servers implemented on the same hardware as another of the illustrated servers. Furthermore, various distributed processing techniques can be used to spread functionality of one or more of the illustrated servers across multiple different machines.

In some embodiments, media automation system **110** can be, for example, a radio automation system used to control media content broadcast via multiple different radio stations in a single market, with some or all system elements and subsystems co-located in a single physical facility. In other embodiments, media automation system **110** can be a radio automation system used to provide control of radio stations in different markets, in different locations, or via different distribution channels. In an illustrated embodiment, media automation system **110** is used to control media broadcast over the air via on-air broadcast chain **150** and broadcast tower **151**, and streaming media provided to the Internet **161** via streaming broadcast chain **160**. Broadcast stations and delivery media in addition to those illustrated in FIG. **1** can also be controlled by media automation system **110**. It should be appreciated that media automation system **110** can also be used with television and other types of media that may broadcast programming via multiple different stations or outlets.

In at least one embodiment, over-air audio server **112** acts as a master audio server, and streaming audio server **111** assumes the role of a slave audio server, when operating in a synchronized mode. During synchronized mode, over-air audio server **112** can exert control over the content and timing of media and spots served by streaming audio server **111**, so that, for example, spot blocks are broadcast beginning and ending at the same time on both the over-air channel served by over-air audio server **112**, and the streaming channel served by streaming audio server **111**. In at least one embodiment, synchronized mode can be used for live programs, e.g. newstalk and live local shows on music stations, and satellite delivered programs that have fixed spot length spot breaks.

At other times, streaming audio server **111** operates in an independent mode, during which over-air audio server **112** does not strictly control the media delivery by streaming audio server **111**. For example, during independent mode, streaming audio server **111** can deliver for broadcast content scheduled in accordance with a copy of the same clock shell used by over-air audio server **112**, but within the constraints of the clock shell in some embodiments, streaming audio server **111** is free to re-order, modify, or substitute media content and spots. In some embodiments, streaming audio server **111** can deliver the same or similar content for broadcast as that being delivered by over-air audio server **112**, but the timing, length, and content of spot blocks used by streaming audio server **111** can be modified and broadcast independently of spot block content, length, and timing used by over-air audio server **112**.

In some embodiments, prior to switching from the synchronized mode to the independent mode, or as part of the process of entering the independent mode, external content currently mapped to over-air audio server **112** is also mapped to streaming audio server **111**. Music logs for streaming audio server **111** can be pointed to the same folder used by over-air audio server **112**, and over-air audio server **112** can be mapped to transmit local voice tracks to streaming audio server **111**. Additionally, one or more terrestrial clocks used by over-air server **112** can be copied to streaming audio server **111**.

Media automation system **110** can obtain media to be broadcast from various sources. For example, production machine **116** can obtain information from broadcasts in other markets via network **140**. Production machine **116** can also obtain media from database **141**, which may be a database local to production machine **116**, or local to another server or machine that is part of media automation system **110**. In other embodiments database **141** can be maintained by a third-party media provider, which can be remote from media automation system **110**. Production machine **116** can also obtain media to be broadcast from individual media sources, such individual source media **142**, which may include any of various non-volatile media storage elements, including but not limited to optical disks, e.g. compact discs (CDs), digital video disks (DVDs), various types of magnetic and electromagnetic storage media, or the like.

Production machine **116** can provide some or all of the media to be broadcast to database server **113**. In addition to the media provided to database server **113** from production machine **116**, satellite receiver **130** can also provide satellite content to be inserted into a broadcast via over-air audio server **112** and streaming audio server **111**. Database server **113** can also receive media or other content to be broadcast from control room machine **115**. Control room machine **115** may include a studio in which a live broadcast is being generated, such as a talk show or other similar live program, but control room machine **115** can also provide media to database server **113** other than live media.

In general, traffic and billing system **120** can be used to provide control and monitoring of the sale and scheduling of spots, and to determine which spots are to be played on which stations at particular times. This information can be provided in the form of a log file, or otherwise. Media automation system **110** can use database server **113** to gather programming and media information from various sources, and combine that information with spot block information **119** to generate a log file indicating a substantially complete representation of which media and spots are to be broadcast. The log file and related information can be provided to both over-

air audio server **112** and streaming audio server **111** for broadcast over their respective chains.

When operating in synchronized mode, both over-air audio server **112** and streaming audio server **111** can operate using the same log file in some embodiments. In other embodiments, over-air audio server **112** and streaming audio server **111** can use log files including the same programming or media content, with synchronized spot blocks, even though different spots may be delivered for broadcast within these synchronized spot blocks. When operating in an independent mode, streaming audio server **111** may operate according to a different log file than the log file used by over-air audio server **112**, or operate according to a similar log file, but without being constrained by the spot breaks associated with over-air audio server **112**.

In at least some embodiments, when operating according to different log files, the log file used by streaming audio server **111** can be generated based on the same clock shell used to generate the log file used by over-air audio server **112**. In some such embodiments, this results in over-air audio server **112** and streaming audio server **111** delivering similar, although not identical, programming, with spot blocks delivered by streaming audio server **111** being unconstrained by a spot block schedule used by over-air audio server **112**. In at least some embodiments, during independent mode, the clock shell used by streaming audio server **111** is periodically synchronized with the clock shell used by over-air audio server **112**. Synchronizing the clock shells does not necessarily synchronize the specific programming, media content, or spots, delivered by over-air audio server **112** and streaming audio server **111** for broadcast via their respective media channels. Synchronizing the clock shells does, however, provide a way for streaming audio server **111** to smooth the transition between independent mode and synchronized mode.

It will be appreciated that various systems can be used to implement the teachings set forth herein, and are not limited to the systems discussed with reference to FIG. **1**. For example, although at least one embodiment includes separate traffic and billing systems, similar functionality can be provided using a single, integrated or system having one or more local or distributed processing, storage and communication elements. Thus, although embodiments including automation and traffic systems are primarily discussed herein, other embodiments can be implemented.

Although reference is made specifically to over-air and streaming audio servers, other types of media servers can be used to implement the teachings set forth herein. For example, system **100** can include multiple over-air audio servers **112**, multiple streaming audio servers **111**, or a combination thereof. Any of the audio servers can be configured to act as a master audio server, with one or more of any remaining audio servers configured to perform in the slave audio server role. Furthermore, the teachings set forth herein are not limited to audio servers, and discussion of a specific example should not be construed to limit this disclosure to only the specifically disclosed embodiments. In some embodiments, for example, video, mixed audio and video, or other media servers can be used to provide media content and spots for broadcast over any suitable media channel. These media channels include, but are not limited to, satellite, television, Internet, and radio.

Referring next to FIG. **2**, a method **200** for use in changing between a synchronized mode and an independent mode is illustrated according to various embodiments of the present disclosure. As illustrated by block **205**, a media server executes an instruction to enter a synchronized mode. This instruction can be a macro or other instruction executed by a dual-mode media server, such as a streaming audio server, currently operating in an independent mode. By executing the instruction to enter a synchronized mode, the dual-mode media server can be configured to operate at least partially under control of another media server, sometimes referred to as the master media server.

The master media server may also execute an instruction to enter or leave the synchronized mode (not illustrated). However, in at least one embodiment, the master media server need not change modes, but can continue to send commands and instructions to the dual-mode media server, regardless of the mode in which the dual-mode media server is currently operating. In some such embodiments, the dual-mode media server can simply ignore any commands received from the master media server when operating in an independent mode, but follow instructions and commands when operating in a synchronized mode.

As illustrated by block **203**, when operating in a synchronized mode, the dual-mode media server delivers content for substantially synchronized broadcast with content being broadcast on another media channel associated with a master audio server. For example, programming and media content delivered by the dual-mode media server for broadcast via an Internet streaming radio station, can be a least partially controlled by the master audio server, which can deliver the same programming and media content via conventional radio transmission. In some embodiments, even if the programming and media content delivered by the dual-mode media server is not the same as that delivered by the master audio server, the master audio server controls the length and scheduling of spot blocks. Thus, in some embodiments, content delivered by the dual-mode server is synchronized to the master audio server, at least to the extent necessary for the beginning and end of spot blocks to coincide.

As illustrated by block **207**, while operating in a synchronized mode, the dual-mode media server can make a check to determine whether a signal to start a spot block has been received from the master audio server. This provides at least one mechanism by which the master audio server exerts control to ensure synchronization of spot blocks and content delivered by the dual-mode media server. If no signal or command to begin a spot block is received from the master audio server, the dual-mode media server continues to deliver content for synchronized broadcast, as illustrated by block **203**.

As illustrated by block **209**, if the dual-mode media server receives a command or other signal to begin delivering a spot block for broadcast while in the synchronized mode, dual-mode media server response to the command by delivering a spot block for broadcast.

As illustrated by block **211**, dual-mode media server can check to determine whether a change to independent mode is to be made. The determination of whether to switch to independent mode can be made on a number of different bases. For example, a hardcoded time to switch from synchronized mode to independent mode may be used, in which case dual-mode media server can switch modes at a predetermined time.

In other embodiments, a command from the master audio server may be received, or the station log used by the dual-mode media server may include a floating event. Such a floating event maybe a command or set of commands embedded or otherwise included in a station log, and configured to take effect upon the occurrence of a trigger event. The trigger event can include, for example, the start or completion of a

particular spot block, the start or completion of a particular programming event, the broadcast of a particular media content item, or the like.

If no change to independent mode is to be made at this time, the dual-mode media server can continue to deliver content for synchronized broadcast, as illustrated by block **203**.

As illustrated by block **213**, if a change to independent mode is to be made, the dual-mode media server can execute an instruction to enter the independent mode. This instruction can, in at least one embodiment, take the form of a macro or other instruction or series of instructions designed to place the dual-mode media server into an independent mode.

During operation in the independent mode, the dual-mode media server can function independently of the master audio server. Thus, for example, spot blocks delivered for broadcast by the dual-mode media server need not be scheduled for the same time as spot blocks delivered by the master audio server. Furthermore, the spot blocks delivered by the master audio server and the dual-mode media server need not have the same length, or the same content.

Additionally, in at least some embodiments when the dual-mode media server is operating in an independent mode, the same content delivered for broadcast by the master audio server can be delivered for broadcast by the dual-mode media server, but in a different order or at different times. In various embodiments, the programming and media content delivered for broadcast by the master audio server and the dual-mode media server need not be the same. Furthermore, when operating in independent mode, the dual-mode media server can deliver spots and spot blocks unconstrained by a spot block schedule used by the master audio server.

As illustrated by block **215**, upon executing the instruction to enter an independent mode, or as part of entering the independent mode, the dual-mode media server obtains a copy of the clock shell used by the master audio server. The clock shell can describe the types of media content to play during particular periods of time, but generally does not dictate specific media items or a particular order of play.

As illustrated by block **217**, during operation in the independent mode, the dual-mode media server can operate in accordance with the copy of the clock shell obtained. Consequently, in at least some embodiments, the dual-mode media server can deliver for broadcast via one media channel, content similar, but not identical to, content being delivered by the master audio server for broadcast via a different media channel. Furthermore, in various embodiments, operating in accordance with the clock shell does not constrain the dual-mode media server to deliver spot blocks for broadcast in synchronization with spot blocks delivered by the master audio server.

In some embodiments, to facilitate content delivery by the dual-mode media server, voice track mappings from external locations that are mapped via an Internet protocol to the master station are duplicated to the dual-mode media server. Additionally, music log loading can be pointed to the same load folder used by the master station. In at least one embodiment, for local voice tracking, the master station is mapped via an Internet protocol to transmit the same tracks to the dual-mode media server.

As illustrated by block **219**, the dual-mode media server can periodically synchronize its copy of the clock shell to a time marker. The time marker may, in some embodiments, occur every hour on the hour or the half hour, every one and a half hours, every 2 hours, or at other periods and times deemed appropriate. The clock shell being used by the master audio server is, in some embodiments, also being synchronized to a time marker, which may or may not be the same time marker used to synchronize the operation of the dual-mode media server. In at least one embodiment, the copy of the clock shell is synchronized with the clock shell used by the master audio server to ensure that a later change by the dual-mode media server from an independent mode to a synchronized mode can be achieved smoothly, without adversely affecting the consumer experience.

To further ensure a smooth transition, in some embodiments, during hours in which the dual-mode media server is scheduled to transition from independent mode back into synchronized mode, macros other than those that control rejoin, synchronization and block fill are avoided.

As illustrated by block **221**, the dual-mode media server can check to determine whether or not to change from independent mode to synchronized mode. Such a check can be performed at a fixed time, or in response to a floating event, similar to the determination made with respect to changing to the independent mode. If the dual-mode media server determines that it is not yet time to switch into synchronized mode, it continues to deliver content according to the clock shell, as illustrated by block **217**. If the dual-mode media server determines at block **221** that a change to synchronized mode should be made, and instruction to enter the synchronized mode can be executed as illustrated by block **205**.

Although a particular embodiment of method **200** has been shown and described, various alterations to method **200** can be made upon consistent with the teachings set forth herein, without departing from the spirit and scope of the disclosure.

Referring now to FIG. **3**, a high-level block diagram of a processing system is illustrated and discussed. Processing system **300** includes one or more central processing units, such as CPU A **305** and CPU B **307**, which may be conventional microprocessors interconnected with various other units via at least one system bus **310**. CPU A **305** and CPU B **307** may be separate cores of an individual, multi-core processor, or individual processors connected via a specialized bus **311**. In some embodiments, CPU A **305** or CPU B **307** may be a specialized processor, such as a graphics processor, other co-processor, or the like.

Processing system **300** includes random access memory (RAM) **320**; read-only memory (ROM) **315**, wherein the ROM **315** could also be erasable programmable read-only memory (EPROM) or electrically erasable programmable read-only memory (EEPROM); and input/output (I/O) adapter **325**, for connecting peripheral devices such as disk units **330**, optical drive **336**, or tape drive **337** to system bus **310**; a user interface adapter **340** for connecting keyboard **345**, mouse **350**, speaker **355**, microphone **360**, or other user interface devices to system bus **310**; communications adapter **365** for connecting processing system **300** to an information network such as the Internet or any of various local area networks, wide area networks, telephone networks, or the like; and display adapter **370** for connecting system bus **310** to a display device such as monitor **375**. Mouse **350** has a series of buttons **380**, **385** and may be used to control a cursor shown on monitor **375**.

It will be understood that processing system **300** may include other suitable data processing systems without departing from the scope of the present disclosure. For example, processing system **300** may include bulk storage and cache memories, which provide temporary storage of at least some program code in order to reduce the number of times code must be retrieved from bulk storage during execution.

Various disclosed embodiments can be implemented in hardware, software, or a combination containing both hardware and software elements. In one or more embodiments, the

invention is implemented in software, which includes but is not limited to firmware, resident software, microcode, etc. Some embodiments may be realized as a computer program product, and may be implemented as a computer-usable or computer-readable medium embodying program code for use by, or in connection with, a computer, a processor, or other suitable instruction execution system.

For the purposes of this description, a computer-usable or computer readable medium can be any apparatus that can contain, store, communicate, or transport the program for use by or in connection with an instruction execution system, apparatus, or device. By way of example, and not limitation, computer readable media may comprise any of various types of computer storage media, including volatile and non-volatile, removable and non-removable media implemented in any suitable method or technology for storage of information such as computer readable instructions, data structures, program modules, or other data. Computer storage media include, but are not limited to, RAM, ROM, EEPROM, flash memory or other memory technology, CD-ROM, digital versatile disks (DVD) or other optical storage, magnetic cassettes, magnetic tape, magnetic disk storage or other magnetic storage devices, or any other medium which can be used to store the desired information and which can be accessed by a computer.

Various embodiments have been described in which a media server is capable of operating part of the time in a synchronized mode, and part of the time in an independent mode. Other variations and modifications of the embodiments disclosed may be made based on the description provided, without departing from the scope of the invention as set forth in the following claims.

What is claimed is:

1. A media broadcast system comprising:

a first media server controlling first media delivery via a first broadcast chain using a broadcast clock shell and a first log file indicating a first representation of media and spots to be broadcast as the first media, the broadcast clock shell operable to describe a plurality of media content types during each of a plurality of time periods;

a second media server controlling second media delivery via a second broadcast chain according to a copy of the broadcast clock shell and a second log file for a second representation of media and spots to be broadcast as the second media, wherein:

in a synchronized mode of operation, the first media server exerts control over the content and timing of media and spots served by the second media server by at least the first log file, the copy of the broadcast clock shell of the second media server being a copy of the broadcast clock shell used by the first media server to produce the second media substantially similar to that of the first media; and

in an independent mode of operation, the second media server is unconstrained by the first log file such that the second media differs from that of the first media, the second log file being different than the first log file.

2. The media broadcast system of claim **1**, wherein the broadcast clock shell and the copy of the broadcast clock shell are periodically synchronized during the independent mode of operation.

3. The media broadcast system of claim **2**, wherein a synchronized copy of the broadcast clock shell includes at least one unsynchronized spot block.

4. The media broadcast system of claim **1**, wherein:

the second media server is further transitioning between the independent mode of operation and the synchronized mode of operation.

5. The media broadcast system of claim **1**, wherein:

at least one spot block in the second log file is synchronized to at least one spot block in the first log file during the synchronized mode of operation, even though the first and second log files include different content.

6. The media broadcast system of claim **1**, wherein:

the first media server transmitting control commands to the second media server even when the second media server is operating in the independent mode.

7. The media broadcast system of claim **1**, wherein, in the synchronized mode of operation, the second media delivered by the second media server is synchronized to the first media delivered by the first server at least to the extent necessary for a beginning and an end of spot blocks to coincide.

8. A streaming media server comprising:

memory;

at least one processor coupled to the memory, the processor controlling media delivery via a streaming broadcast chain, wherein at least a portion of time the streaming media server operates in a synchronized mode of operation and at least a portion of time in an independent mode of operation; and wherein:

during the synchronized mode of operation, the processor delivering media according to a broadcast clock shell and a first log file having spot break beginning and ending times synchronized to spot break beginning and end times of a second log file used by another media server that delivers media via another broadcast chain, the broadcast clock shell operable to describe a plurality of media content types during each of a plurality of time periods; and

during the independent mode of operation, the processor delivering media according to the broadcast clock shell and the first log file having spot break beginning and ending times that are independent of spot break beginning and end times in relation to that of the second log file used by the another media server.

9. The streaming media server of claim **8**, wherein the first log file is generated from a copy of a broadcast clock shell used to generate the second log file.

10. The streaming media server of claim **9**, wherein:

the copy of the broadcast clock shell is periodically synchronized to the the broadcast clock shell during the independent mode of operation; and

the copy of the broadcast clock shell includes at least one unsynchronized spot block after being synchronized.

11. The streaming media server of claim **8**, wherein:

the at least one processor transitioning between the independent mode of operation and the synchronized mode of operation.

12. The streaming media server of claim **11**, wherein:

in response to executing an instruction to switch from the synchronized mode to the independent mode, the at least one processor obtaining a copy of the broadcast clock shell used by a master media server.

13. The streaming media server of claim **8**, wherein

during the synchronized mode, the at least one processor delivering a block of advertisements for broadcast in response to receiving a command, from a master server, to begin delivery of a spot block; and

during the independent mode, the at least one processor ignoring the command to begin delivery of the spot block.

14. A method for use in a media broadcast system comprising:

executing at least one computer instruction to control delivery of first media from a first media server via a first broadcast chain at least in part by using a broadcast clock shell and a first log file indicating a first representation of media and spots to be broadcast as the first media, the broadcast clock shell operable to describe a plurality of media content types during each or a plurality of time periods;

executing at least one computer instruction to control delivery of second media from a second media server via a second broadcast chain at least in part by using a copy of the broadcast clock shell and a second log file for a second representation of media and spots to be broadcast as the second media, wherein:

the copy of the broadcast clock shell is a copy of the same broadcast clock shell used by the first media server during both a synchronized mode of operation to produce the first media and an independent mode of operation to produce the second media; and

the second log file is different than the first log file during at least the independent mode of operation and the second log file is unconstrained by the first log file during at least the independent mode of operation such that the second media differs from that of the first media.

15. The method of claim **14**, further comprising:

executing at least one computer instruction to synchronize the broadcast clock shell and the copy of the broadcast clock shell during the independent mode of operation.

16. The method of claim **15**, wherein a synchronized copy of the broadcast clock shell includes at least one unsynchronized spot block.

17. The method of claim **14**, wherein the clock shell describes types of media content to play during particular periods of time, but does not dictate specific media items or a particular order of play.

18. The method of claim **14**, further comprising:

executing at least one computer instruction in the second media server to transition between the independent mode of operation and the synchronized mode of operation.

19. The method of claim **14**, further comprising:

executing at least one computer instruction in the first media server to transmit spot-block start commands to the second media server.

20. The method of claim **14**, wherein, in the synchronized mode of operation, the second media delivered by the second media server is synchronized to the first media delivered by the first server at least to an extent necessary for a beginning and an end of spot blocks to coincide.

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